



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,341	04/14/2004	Gary W. Guent	P-10073.00	5392

27581 7590 10/09/2007  
MEDTRONIC, INC.  
710 MEDTRONIC PARKWAY NE  
MINNEAPOLIS, MN 55432-9924

EXAMINER
----------

TYSON, MELANIE RUANO

ART UNIT	PAPER NUMBER
----------	--------------

3773

MAIL DATE	DELIVERY MODE
-----------	---------------

10/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/824,341

Applicant(s)

GUENST, GARY W.

Examiner

Melanie Tyson

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 32-42 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-20, and 32-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This action is in response to Applicant's amendment received on 02 July 2007.

#### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-15, 16-20, and 32-42 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 7, 9, 13, 32, 34, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Duhaylongsod et al. (Patent No. 6,241,741 B1). Duhaylongsod discloses a method of joining a blood conduit to a blood vessel (see entire document) comprising the steps of making an incision (18) in the blood vessel wall (14), advancing the tubular member through the incision located on a proximal end thereof (for example, see Figure 19), inserting a tubular member (90) into a conduit (50), fixedly joining the conduit to the vessel wall (balloons, or weakened wall regions, are inflated, or expanded radially outward, expanding the end portions of the conduit to engage the wall) while providing an oxygenated liquid flow (blood) through the tubular member and into the vessel (through openings 98), and after fixedly joining the conduit to the vessel, withdrawing the tubular member through the conduit (for example, see column 8, lines 22-49 and Figures 18-21).

Art Unit: 3731

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 2, 5, 6, 10-12, 33, 36, 37, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duhaylongsod et al.

With respect to claims 2 and 33, Duhaylongsod discloses inserting a tubular member into a conduit and advancing a tubular member through a vessel (see rejection above), wherein the inserting is performed after the advancing. Applicant has not disclosed that performing the inserting before advancing provides an advantage, is used for a particular purpose, or solves a stated problem over inserting after advancing. Furthermore, Applicant discloses that the inserting may be performed either before or after advancing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the inserting before the advancing, since the reversal of these steps involves only routine skill in the art.

Art Unit: 3731

With respect to claims 5, 6, 36, and 37, Duhaylongsod discloses the blood vessel may be a coronary artery. Applicant has not disclose that utilizing a saphenous vein or internal mammary artery as the conduit provides an advantage, is used for a particular purpose, or solves a stated problem over utilizing other veins, arteries, and synthetic vascular grafts. Furthermore, both Applicant and Duhaylongsod disclose that in addition to a thoracic artery, other vessels, arteries, or synthetic vascular grafts may be used. Therefore, it would have been obvious to modify the conduit of Duhaylongsod to obtain the invention as specified in claims 5, 6, 36, and 37.

With respect to claims 10-12, 40, and 41 Duhaylongsod discloses the oxygenated fluid includes blood. Applicant has not disclosed that utilizing blood supplied from the femoral artery or aorta, or utilizing a non-blood oxygenated carrying substance provides an advantage, is used for a particular purpose, or solves a stated problem over utilizing simply blood (from any location). Furthermore, Applicant discloses that any suitable oxygenated fluid can be used to provide the needed oxygen to the blood vessel undergoing the anastomosis. Therefore, it would have been obvious to modify the liquid of Duhaylongsod to obtain the invention as specified in claims 10-12, 40, and 41.

6. Claims 4 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duhaylongsod et al. in view of Stanish (Patent No. 6,585,762 B1). Duhaylongsod discloses a method as described above, however, fails to disclose fixedly joining includes suturing the conduit to the blood vessel. Stanish discloses a method of joining a blood conduit to a blood vessel wall (see entire document). Stanish teaches suturing the conduit to the blood vessel wall in order to advantageously secure the conduit to the

Art Unit: 3731

vessel (for example, see column 7, lines 37-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to suture the conduit to the blood vessel in the method of Duhaylongsod as taught by Stanish. Doing so would ensure the conduit and vessel are secured together.

7. Claims 8, 14, 16-20, 39, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duhaylongsod et al. in view of Amor et al. (Patent No. 6,059,809). Duhaylongsod discloses a method as described above, however, fails to disclose inserting a stiffening member within the tubular member, and wherein the expanding includes forcing the oxygenated fluid under pressure through the tubular member to expand the weakened distal region and into the blood vessel. Amor discloses a method (see entire document) comprising the steps of inserting a tubular member (4) through a conduit (8) and into a vessel. Amor teaches inserting a stiffening member (6) within the tubular member (4) and providing fluid through the tubular member, which inflates the weakened distal region (12), into the vessel at a pressure higher than the patient's blood pressure through ports (25) distinct from the proximal end (for example, see Figure 3 and column 4, lines 41-49) in order to flush the area of debris (for example, see column 3, lines 17-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the method steps of Amor in the method of Duhaylongsod. Doing so would provide a means of flushing the anastomosis site during the procedure, thus deviating debris to other places of the body where they can provoke no harm.

Art Unit: 3731

With further respect to claims 8, 16, and 39, it would have been obvious to one of ordinary skill in the art at the time the invention was made as a matter of design choice to provide the device of Duhaylongsod in view of Amor with a flow restrictor and a bulb for providing the fluid pressure, since such mechanisms are well known in the art (for example, see Blum's patent 4,230,119; restrictor 20 and bulb 13).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Tyson whose telephone number is (571) 272-9062. The examiner can normally be reached on Monday through Thursday 8:30-7.

Art Unit: 3731

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jackie Ho can be reached on (571) 272-4696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melanie Tyson   
September 26, 2007

  
(JACKIE) TAN-UYEN HO  
SUPERVISORY PATENT EXAMINER